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RESEARCH ARTICLE

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POTENTIAL OF GEOGRAPHICAL INDICATION FOR HONEY FROM THE SERRA DA CAPIVARA DEVELOPMENT TERRITORY

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ABSTRACT

The Indication of Origin is one of the types of Geographical Indication provided for in Brazilian legislation, granted to certain products when the region's notoriety as a center of extraction or production is proven. This research aims to analyze the possibility of certification by Indication of Origin for honey produced in the Development Territory of Serra da Capivara. Therefore, it sought to verify the territory's notoriety in the academic and media sphere, based on searches in Google and Google Scholar databases in the period from 2011 to 2021. The results showed that the Serra da Capivara Development Territory, specifically the micro-region of São Raimundo Nonato, is recognized as a center for honey extraction in the State of Piauí. Therefore, it is observed that the Territory fulfills one of the main requirements for the granting of the Indication of Origin certification, the notoriety of the geographical area. Thus, it is essential to develop actions and public policies aimed at disseminating knowledge on the subject and carrying out studies for the feasibility of GIs, as well as the preparation of the certification request for products and/or services with potential.

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INTRODUCTION

The State of Piauí has 12 Sustainable Development Territories. These territories are socially organized spaces, composed of a set of counties characterized by a historical and cultural identity, natural heritage, dynamics and economic relations, constituting the main units of planning and governmental action (Piauí, 2017). In this sense, this division represents a strategy to promote territorial development, according to the environmental characteristics and productive dispositions of the counties. In this context, the Serra da Capivara Development Territory (TDSC) stands out, located in the semi-arid macro-region, comprising 18 counties, including São Raimundo Nonato, Anísio de Abreu and Coronel José Dias (Centro de Pesquisas Econômicas e Sociais do Piauí, 2018). This Territory is characterized by a high percentage of rural population, especially Agrarian Reform Settlements and traditional communities, such as the Quilombola Lagoas Territory, the 4th largest in Brazil in terms of size and number of families (Centro de Gestão e Estudos Estratégicos Ciência, Tecnologia e Inovação, 2015; Faria, 2016).

Among the potential of TDSC stands out beekeeping, an economic activity of representation in the State of Piauí. In the period 2018 to 2020, Piauí was highlighted as the third largest honey producer in Brazil and the first in the Northeast region, followed by Bahia and Ceará. Within the perspective of national production growth, the Northeast had 10.6% growth in 2019, and Piauí accounted for 31.9% of the region's growth (Carpaso, 2021). At TDSC, beekeeping is presented as a strategic activity for territorial development and living with the semi-arid region. In 2020, the production volume of only 10 counties in the Territory corresponded to 24% of the total honey production in Piauí. It should be noted that this production, better known as the production of honey from São Raimundo Nonato, is widely cited in both academic and informative literature, which demonstrates the product's notoriety. The honey produced in the Territory is organic as it comes from typical plants in the semi-arid region. The natural sequence of flowering provides production from December to June and at least three types of honey, mainly "marmeleiro, do angico de bezerro e do bamburral". Despite the predominant flavor of the flowering of these plants native to the Territory, the chemical composition of the honey produced contains nectar from several other flowerings in the caatinga that bloom at the

same time of year, which characterizes the honey produced as Silvestre. The diversity of the Brazilian flora favors the production of honey and propolis that are differentiated and typical of each micro-region of the country. This enables certification by Geographical Indication (GI), an intangible industrial property asset, strategic in the protection of geographic names linked to products and/or services originating in certain territories (Serviço Brasileiro de Apoio às Micro e Pequenas Empresas, 2016). In Brazil, GIs are regulated by the Industrial Property Law (No. 9,279/96), which provides for two types: Denomination of Origin and Indication of Origin. Denomination of Origin is the geographic name of the country, city, region or locality in its territory, which designates a product or service whose qualities or characteristics are exclusively or essentially due to the geographic environment, including natural and human factors. Indication of Origin, on the other hand, refers to the geographic name of a country, city, region or locality in its territory, which has become known as a center for the extraction, production or manufacture of a determined product or provision of a determined service (Brasil, 1996). In Brazil, 68 Indication of Origin were granted (all national) and 29 Denomination of Origin (20 national and 9 foreign). From this total of GIs granted, honey received 02 Indication of Origin and 03 Denomination of Origin certifications (Instituto Nacional de Propriedade Industrial [INPI], 2021). This quantity of certifications evidence the awakening of producers to the importance of adopting differentiation and protection strategies for their products and/or services. In this sense, Wander *et al.* (2020) explains that GI can be perceived as a “collective brand”, functioning as a strategy to protect producers and positively influence the commercialization of products or the provision of services.

According to Ceiet *et al.* (2018), one of the main objectives of the GI is to promote territorial development, especially in the rural area. Thus, given IG's ability to act in the strengthening of production chains and in generating economic, social, environmental and technological impacts in the demarcated areas, it is essential to carry out research to identify the potential of determined products and/or services to receive certification. In this sense, this research aims to analyze the possibility of certification by Indication of Origin for honey produced in the Development Territory of Serra da Capivara.

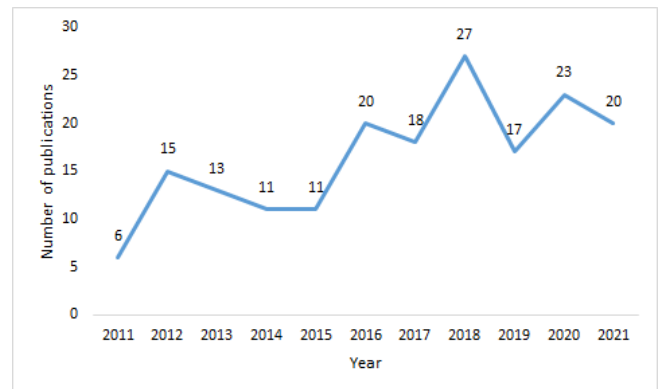
MATERIAL AND METHODS

This is an applied research that sought to generate information to support a possible request for Indication of Origin for honey from the TDSC. As for the approach, it is qualitative and quantitative, and exploratory as to the objective. To achieve the proposed objective, searches were performed out in the Google Scholar and Google databases to identify, in academic and informative literature, studies and news about the honey produced at TDSC, especially in the Microregion of São Raimundo Nonato. The first search was performed in the Google Scholar database with the search string 'Apiculture AND São Raimundo Nonato AND Piauí', in a time frame of 11 years, (2011 to 2021) to verify the notoriety of the Territory's honey production in the academic environment. The second search was performed on the Google search platform with the string 'news honey in São Raimundo Nonato Piauí', to verify the notoriety of Territory honey production in informative literature. With regard to the Indication of Origin, one of the main requirements it is proof of the notoriety of the region to be demarcated. The collected data were tabulated and analyzed according to the requirements defined by the regulations of the National Institute of Industrial Property that deal with the conditions for granting GIs.

RESULTS

From the search expression 'Apiculture AND São Raimundo Nonato AND Piauí', in a time frame from 2011 to 2021, 181 scientific publications on the subject were identified. Figure 1, shows that the annual volume of publications has fluctuated over the period studied. Analyzing the behavior of the variable in two distinct periods, it is observed that in the first five years of the time frame there was a

smaller number of publications compared to the period from 2016 to 2021, recording the highest production peak in the series in the year 2018. In general, there was an average accumulated annual growth of 233% in the volume of publications in the period analyzed, signaling the increased interest of researchers in the subject.



Source: survey data (2021)

Figure 1. Number of publications per year in the period 2011-2021

Using the search string 'news honey in São Raimundo Nonato Piauí', approximately 136,000 results were identified related to the participation of the microregion of São Raimundo Nonato in the total volume of production in the State of Piauí. With regard to journalistic articles, the notoriety of the microregion in the beekeeping production of the State of Piauí is also verified. In general, the reports address the recognition of the microregion as one of the main centers of honey extraction in the state, making the product known as “São Raimundo Nonato Honey” due to the location of extraction and the unique characteristics of honey.

DISCUSSION

The oscillations observed in the annual volume of publications can be related to several factors, such as greater investments in science, technology and innovation, definition of public policies for territorial development, institutional actions and variations in aspects of production and commercialization, which, in turn, can be associated with climatic and environmental factors (Oliveira *et al.*, 2018). For Oliveira (2019), structural policies and institutional systems affect research investments and the behavior of researchers from different areas of knowledge, directly impacting the volume and quality of Brazilian science. Scientific researches related to the TDSC's beekeeping production have different objectives, but aligned with the perspectives of highlighting the product's distinctiveness, management practices and direct and indirect impacts on the territory. Among the topics discussed are the health profile of beekeepers in terms of the proper use of good beekeeping practices; the physicochemical and microbiological quality of *Apis mellifera* honeybee honey; good beekeeping practices in the semi-arid region of Piauí; the development of the beekeeping network in the Sertão do Piauí; the visions of development and sustainability in the beekeeping area; the co-constructions of technologies resulting from the work of beekeeping technicians in rural communities and the environmental, social, economic and technical aspects of the beekeeping sector (Moura *et al.*, 2013; Moura, 2014; Telles Ribeiro, 2017; Carvalho *et al.*, 2019; Lobo, 2020). The magazine “Globo Rural” (2004), for example, highlighted the production of honey in the State of Piauí, especially in some counties, such as Picos, Simplicio Mendes, Coronel José Dias and São Raimundo Nonato. The official website of the Government of the State of Piauí pointed out the professionalization of beekeeping in the micro-region of São Raimundo Nonato and its impacts on living with the semi-arid region (Leal, 2011). Portal Sertão highlighted the results of the super production of honey in the micro-region of São Raimundo Nonato (Ribeiro, 2018).

In Portal Cidade Verde, Lima (2021), supported by data from the Municipal Livestock Survey 2020 carried out by the Brazilian Institute of Geography and Statistics, highlighted that the counties of São Raimundo Nonato and Picos are among the ten largest honey producers in the Brazil. The State Secretariat for Rural Development highlighted Piauí as the country's largest honey exporter, and listed TDSC counties, such as São Raimundo Nonato, as strong producers in the microregion (Maciel, 2021). Portal o Dia (2021) and Portal São Raimundo Nonato (2021) highlighted that São Raimundo Nonato is part of the 10 largest honey producers in Brazil. Therefore, the publications identified in this research show the notoriety of TDSC, especially of the microregion of São Raimundo Nonato, as a honey extraction center in the State of Piauí. In addition to Industrial Property Law No. 9,279/96, Normative Instruction No. 095/2018 also establishes the conditions for the registration of GIs in Brazil. According to the Normative Instruction, in the IP request process, it is necessary to present documents to prove the reputation of the geographic name as a center of extraction, production or manufacturing of the product or service provision (INPI, 2018).

It is considered that the geographic name became known when expressly mentioned, by different research sources (INPI, 2021). The notoriety of TDSC as a center for honey extraction has already been mentioned in other studies, such as the research carried out in 2014 by researchers from Brazilian Agricultural Research Corporation [Embrapa], an institution that fosters discussions on GI in Brazil. According to the diagnosis, honeybee honey and other bee products from the semiarid region of Piauí, especially honey from Serra da Capivara and honey from Picos, had the potential to start a certification of origin program, mainly in the Indication of Origin species. The diagnosis also highlighted that, despite the potential of the product for certification by Indication of Origin, no action was taken in this direction (Filho & Silva, 2014). Also, according to the researchers (Silva & Filho, 2014), identifying the product's potential is the first work and an important step to be carried out for the construction of the notoriety dossier. However, it is necessary to carry out a broader and more targeted study to know the current conditions of exploitation (bioeconomic and sociocultural aspects), delimitation of production zones and studies of the product's specificities, with regard to organoleptic and nutritional quality, among others characteristics of the certification object.

CONCLUSION

The study can directly and indirectly impact the entire TDSC beekeeping production chain. GI represents a differentiation strategy, favoring the value of the territory and economic activity, access to commercialization channels and collective actions, contributing to territorial development. The GI seal, specifically in the IP modality, will act to strengthen beekeeping in the demarcated area and generate economic, social, environmental and technological impacts on the TDSC. The results obtained from academic and informative sources signal the notoriety of the Microregion of São Raimundo Nonato, a member of TDSC, as a honey extraction center in the State of Piauí and present information to start the process of preparing the IP request. In this sense, it is suggested to form a collaborative network involving different social actors (producers, social organizations, public and private institutions, teaching and research) around discussions on GI, especially in relation to raising awareness among producers, and preparation of the Request for Indication of Origin for honey from the micro-region. It is also suggested to carry out a feasibility study for a possible Denomination of Origin certification for certain types of honey in the micro-region.

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